

composed of alternately stacked layers different in optical characteristic, on a base, the method comprising:

measuring an optical characteristic of the optical component obtained by forming the multi-layer film on the base, wherein the measurement step comprises the step of measuring a transmittance of the optical component;

controlling, on a basis of the measured optical characteristic of the optical component, a thickness of a portion of the multi-layer film to be formed on the base by terminating the film formation at the portion of the multi-layer film when the measured transmittance of the optical component is changed to be decreased; and

removing a layer portion formed during a period of time from a time point when the increase/decrease of the measured mean light transmittance of the optical component is stopped to a time point when the measured mean light transmittance is changed to be decreased.

10. (Amended) A method for forming an optical component, comprising:

(i) depositing a plurality of optical layers on a base to form a surface; and

(ii) controlling a thickness of one layer of said plurality of optical layers, by

(a) depositing a tuning layer on the surface of the plurality of optical layers to form a stack, wherein the tuning layer is the one layer and defines a thickness,

(b) measuring an optical characteristic of the stack to obtain a first optical characteristic value,

(c) measuring the optical characteristic of the stack after continued deposition to obtain a second optical characteristic value,

(d) determining whether the second optical characteristic value has decreased as

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compared to the first optical characteristic value, and

(e) when the second optical characteristic value has not decreased, continuing the depositing of the tuning layer to add to the stack and returning to steps (ii)(b)-(e), and when the second optical characteristic measured has decreased, terminating the depositing of the tuning layer.